Claims

What is claimed is:

1. In a fluid pressure regulator having a fluid inlet, a fluid outlet, an orifice of a first dimension disposed between said fluid inlet and said fluid outlet, and a stem of a second dimension extending through and disposed within said orifice, said second dimension being smaller than said first dimension such that said fluid pressure regulator exhibits a first flow capacity that depends, at least partially, on the relative sizes of said first and second dimensions, the improvement wherein said stem is selectively replaceable with another stem of a third dimension that is smaller than said first dimension and different than said second dimension, whereby the flow capacity of said fluid pressure regulator is selectively changeable from said first flow capacity to a second flow capacity that depends, at least partially, on the relative sizes of said first and third dimensions.

2. The fluid pressure regulator of claim 1, further comprising a flexible diaphragm disposed between said orifice and said fluid outlet, wherein said stem of a second dimension is operably coupled to said flexible diaphragm, and said stem of a second dimension is selectively detachable from said flexible diaphragm so as to permit said replacement of said stem of a second dimension with said stem of a third dimension.

3. The fluid pressure regulator of claim 2, further comprising a body having walls which at least partially define said orifice, wherein said flexible diaphragm is disposed within said body.

4. A method of changing the flow capacity of a fluid pressure regulator which includes a fluid inlet, a fluid outlet, an orifice of a first dimension disposed between said fluid inlet and said fluid outlet, and a first stem of a second dimension extending through and disposed within said orifice, said second dimension being smaller than said first dimension such that said fluid pressure regulator exhibits a first flow capacity that depends, at least partially, on the relative sizes of said first and second dimensions, said method comprising the steps of:

removing said first stem from said fluid pressure regulator; and

replacing said first stem with a second stem of a third dimension, said third dimension being smaller than said first dimension and different than said second dimension, whereby said fluid pressure regulator exhibits a second flow capacity that depends, at least partially, on the relative sizes of said first and third dimensions.

5. The method of claim 4, wherein said removing step includes removing said first stem from within said orifice in a direction opposite the direction of fluid flow through said orifice.

6. The method of claim 4, wherein said replacing step includes inserting said second stem into said orifice in the same direction as the direction of fluid flow through said orifice.

7. A method of changing the flow capacity of a fluid pressure regulator which includes a mounting base having a fluid inlet and a fluid outlet; and a first pressure control module coupled to said mounting base, said first pressure control module having an orifice of a first dimension disposed between said fluid inlet and said fluid outlet, and a stem of a second dimension extending through and disposed within said orifice, said second dimension being smaller than said first dimension such that said fluid pressure regulator exhibits a first flow capacity that depends, at least partially, on the relative sizes of said first and second dimensions, said method comprising the steps of:

removing said first pressure control module from said mounting base; and

replacing said first pressure control module with a second pressure control module having an orifice of said first dimension and a stem of a third dimension smaller than said first dimension and different than said second dimension, whereby said fluid pressure regulator exhibits a second flow capacity that depends, at least partially, on the relative sizes of said first and third dimensions.

8. A method of changing the flow capacity of a fluid pressure regulator which includes a mounting base having a fluid inlet and a fluid outlet; and a pressure control module coupled to said mounting base, said pressure control module having an orifice of a first dimension disposed between said fluid inlet and said fluid outlet, and a first

stem of a second dimension extending through and disposed within said orifice, said second dimension being smaller than said first dimension such that said fluid pressure regulator exhibits a first flow capacity that depends, at least partially, on the relative sizes of said first and second dimensions, said method comprising the steps of:

detaching said pressure control module from said mounting base;

removing said first stem from said pressure control module;

replacing said first stem with a second stem of a third dimension, said third dimension being smaller than said first dimension and different than said second dimension; and

reattaching said pressure control module to said mounting base, whereby said fluid pressure regulator exhibits a second flow capacity that depends, at least partially, on the relative sizes of said first and third dimensions.

9. In a fluid pressure regulator having a fluid inlet, a fluid outlet, an orifice disposed between said fluid inlet and said fluid outlet so as to permit fluid to flow in a downstream direction through said orifice from said fluid inlet to said fluid outlet, a flexible diaphragm disposed downstream of said orifice, a diaphragm chamber at least partially defined by said flexible diaphragm, and a stem operably coupled to said flexible diaphragm and extending through said orifice, the improvement wherein said stem is detachably coupled to said flexible diaphragm such that, after detachment of said stem from said flexible diaphragm, said stem may be removed from said fluid pressure regulator without removing said flexible diaphragm.

10. The fluid pressure regulator of claim 9, further comprising a main compression spring located downstream of said orifice for counteracting a fluid pressure within said diaphragm chamber, and wherein said stem is removable from said fluid pressure regulator without removing said main compression spring.

11. The fluid pressure regulator of claim 10, further comprising a bonnet for retaining said compression spring, and wherein said stem is removable from said fluid pressure regulator without removing said bonnet.

12. The fluid pressure regulator of claim 9, wherein said stem is sized and shaped such that, after detachment of said stem from said diaphragm, said stem may be removed from said orifice in an upstream direction.

13. The fluid pressure regulator of claim 9, further comprising a post operably coupled to said flexible diaphragm, said stem being detachably coupled to said post.

14. The fluid pressure regulator of claim 13, wherein said post is movable relative to said flexible diaphragm.

15. The fluid pressure regulator of claim 13, wherein said post includes internal threads and said stem includes external threads which threadedly engage said internal threads such that said stem is detachably coupled to said post, said external

threads of said stem being sized so as to permit removal of said stem from said orifice in said upstream direction.

16. A fluid pressure regulator, comprising a mounting base including a fluid inlet and a fluid outlet; and a pressure control module coupled to said mounting base, said pressure control module including a body, an orifice disposed within said body between said fluid inlet and said fluid outlet so as to permit a fluid to flow in a downstream direction through said orifice from said fluid inlet to said fluid outlet, and a filter disposed within said body between said orifice and said fluid inlet so as to permit at least a portion of the fluid to flow through said filter before flowing through said orifice.

17. The fluid pressure regulator of claim 16, further comprising a stem extending through and disposed within said orifice.

18. The fluid pressure regulator of claim 16, wherein said filter is removable from said body via a hole in said body disposed upstream of said orifice between said fluid inlet and said orifice.

19. The fluid pressure regulator of claim 16, further comprising a seat sized and shaped to close said orifice, said seat being disposed upstream of said orifice between said filter and said orifice.

20. A fluid pressure regulator, comprising a mounting base including a fluid inlet and a fluid outlet; and a pressure control module coupled to said mounting base and including a body, an orifice within said body between said fluid inlet and said fluid outlet so as to permit a fluid to flow in a downstream direction through said orifice from said fluid inlet to said fluid outlet, an access plug disposed in said body between said orifice and said fluid inlet and including a conduit formed in said plug so as to permit at least a portion of the fluid to flow through said plug before flowing through said orifice, and means for permitting said access plug to be removed from said body so as to provide access to a replaceable component of said pressure control module disposed at least partially upstream of said orifice.

21. The fluid pressure regulator of claim 20, wherein said replaceable component is a filter.

22. The fluid pressure regulator of claim 20, wherein said replaceable component is a stem extending through and disposed within said orifice.

23. The fluid pressure regulator of claim 20, wherein said replaceable component is a spring.